

**ABSTRACT OF THE DISCLOSURE**

**COVER SLIP**

A cover slip for forming a chamber of the type for use with a hybridization reaction or similar molecular search. The cover slip has a surface  
5 and two substantially parallel, opposed edges bounding the surface. A spacer has a pair of spacer segments, and each spacer segment extends along substantially a full length of a different one of the opposed edges, thereby forming a chamber between the spacer segments, the cover slip and the substrate. The chamber receives the specimen when the cover slip is placed on  
10 the substrate with the spacer sandwiched therebetween. The cover slip has a thickness providing a beam stiffness permitting the cover slip to maintain a substantially constant distance between the surface and the substrate when a liquid is introduced between the cover slip and the substrate. In another embodiment, the spacer extends along the perimeter of the cover slip and has  
15 discontinuities forming two channels across the perimeter for introducing the liquid therethrough. The spacer determines a distance between the cover slip and the substrate; and by extending along most of the perimeter of the cover slip, the spacer substantially reduces evaporation of the liquid.

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